

■ Surge Protection
For *Business-Critical Continuity™*

Liebert SH Series Surge Protection
Installation, Operation and Maintenance Manual



Liebert®


EMERSON™
Network Power

LIEBERT SURGE PROTECTIVE DEVICE INSTALLATION, OPERATION AND MAINTENANCE MANUAL

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UNPACKING AND INSTALLATION

Unpacking and Preliminary Inspection

1. Inspect the shipping crate(s) for damage or signs of mishandling before unpacking the unit.
2. Remove any securing bands and cardboard packing and inspect the unit for any obvious shipping damages.
3. If any damage as a result of shipping is observed, immediately file a claim with the shipping agency and forward a copy to your local Liebert Sales Representative.

Handling Considerations

Larger units are bolted to a shipping pallet to facilitate handling by forklift or pallet jack. Check the size and weight. Refer to the cabinet data furnished with the unit.

Storage

The unit should be stored in a clean, dry environment. Storage temperature range is -55°C (-67°F) to +85°C (+185°F). Care should be taken to avoid condensation. All packing and shipping materials should be left intact until the unit is ready for final installation. If the unit has been stored for an extended period of time, the unit should be cleaned and carefully inspected before placing into service.

LOCATION CONSIDERATIONS

For optimum transient surge protection, coordinated surge suppression should be applied at the service entrance and all other electrical connections to the building (telephone, CATV, etc.), at known surge generating loads within the building (large motors, arc welders, switched capacitors, etc.), as well as at sensitive electronic loads (such as computers, electronic appliances, solid state motor drives, etc.). For interconnected electronic loads (such as by way of data cabling), transient surge suppression should also be applied to the interconnecting wiring (data cables).

Environment — Unit is designed for operation indoors in ambient temperatures of -40°C (-40°F) to +60°C (+140°F) with a relative humidity of 0% to 95% (non-condensing).

The unit is provided in an industrial use enclosure, which is dust-tight and drip-tight and should not be installed in areas with excessive dust, corrosive vapors, flammable materials or explosive atmospheres.

Audible Noise — The audible noise of the unit is less than 40 dB at 5 feet, which allows its placement within almost any room if desired.

Service Clearances—Service clearance is needed for units with hinged doors on the front that are capable of being opened. Thirty-six inches (36 in/914 mm) minimum is recommended.

Mounting — Unit is intended to be wall mounted. Refer to installation instructions for mounting dimensions and weight.

Warnings Defined —



Danger: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.



Warning: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.



Caution: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

ELECTRICAL CONNECTIONS

All electrical connections should be installed by a qualified (licensed) electrician only. All wiring must comply with the National Electrical Code (NEC) and applicable local codes.



VERIFY THAT ALL POWER CIRCUITS ARE DE-ENERGIZED AND LOCKED OUT BEFORE MAKING ELECTRICAL CONNECTIONS.

Voltage Ratings and Power Source Configurations — Before making connections to the unit, verify that the unit model number and nameplate voltage rating are appropriate for connection to the intended power source. See the chart on page 4 for voltage rating applications with typical power source configurations.



Wire Connections — With parallel connection, the size of the wiring to the SPD unit is independent of the protected circuit's ampacity. NEC Article 285-21(B) requires surge suppressor connecting conductors to be at least #14 copper or #12 aluminum. To reduce the wiring impedance to surge currents, it is recommended that the phase, neutral (if required), and ground conductors are twisted together and routed in the same raceway (conduit). Avoid any sharp bends in the conductors.

Overcurrent Protection — The SPD unit conducts practically no current under normal operation and only conducts very short duration transient surge currents.

NEC Considerations — The following is from the National Electric Code 2008 Edition.

NEC 285.21 Connections

NEC 285.23 Type 1 SPDs. Shall be installed in accordance with 285.35(A) and (B).

(A) Installation. Type 1 SPDs shall be installed as follows:

- (1) Type 1 SPDs shall be permitted to be connected to the supply side of the service disconnect as permitted in 230.82(4) or
- (2) Type 1 SPDs shall be permitted to be connected in Type 2 locations as specified in 285.24.

(B) At the service. When installed at the services, the grounding conductor of a Type 1 SPD shall be connected to one of the following:

- (1) Grounded service conductor
- (2) Grounded electrode conductor
- (3) Grounding electrode for service
- (4) Equipment grounding terminal in the service equipment

Voltage Protection Ratings — To obtain the voltage protection ratings (VPRs), as obtained by Underwriters Laboratory, Incorporated, in accordance with the *Standard for Safety, Surge Protective Devices (SPDs), Standard 1449, Third Edition, released (2009)*, marked on this product, the wire size listed for each product must be utilized to connect the unit to your facilities' power grid. Connections made with conductors other than the wire size listed may result in different VPRs.

Circuit Ampacity Limitations — Representative samples of these products have been investigated by Underwriters Laboratories, Incorporated to withstand, without exposing live circuits or components at system voltages and fault currents up to 200,000 AIC, as described in the *Standard for Safety, Surge Protective Devices (SPDs), Standard 1449, Third Edition, released (2009)*.

System Grounding and Bonding — The performance and safety of any SPD system is dependent on proper grounding and bonding. Grounding is required for safety. Correct implementation also enhances equipment performance. Incorrect grounding can reduce or impede the SPD's operation.

All electrical circuits to the SPD must include an equipment-grounding conductor as required by the NEC and local codes.

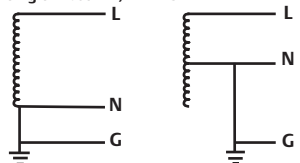
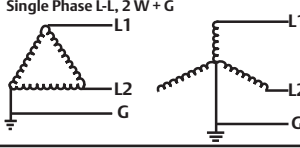
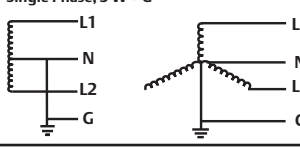
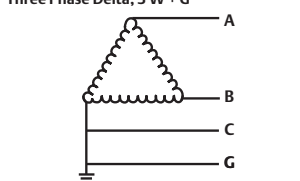
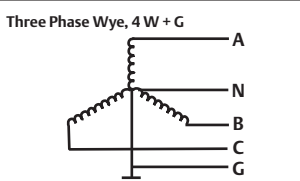
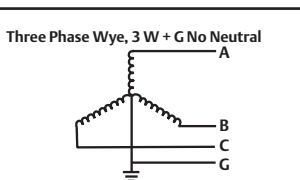


UNGROUND POWER SYSTEMS ARE INHERENTLY UNSTABLE AND CAN PRODUCE EXCESSIVELY HIGH LINE-TO-GROUND VOLTAGES DURING CERTAIN FAULT CONDITIONS. DURING THESE FAULT CONDITIONS ANY ELECTRICAL EQUIPMENT, INCLUDING AN SPD, MAY BE SUBJECTED TO VOLTAGES WHICH EXCEED THEIR DESIGNED RATINGS. THIS INFORMATION IS BEING PROVIDED TO THE USER SO THAT AN INFORMED DECISION CAN BE MADE BEFORE INSTALLING ANY ELECTRICAL EQUIPMENT ON AN UNGROUNDED POWER SYSTEM. CONTACT FACTORY FOR UNGROUNDED APPLICATIONS.

An insulated grounding conductor is required in addition to any metallic raceway, which may be used as a grounding conductor. For parallel-connected SPDs, the grounding conductor should be the same wire size as the associated power conductors.

(continued on page 5)

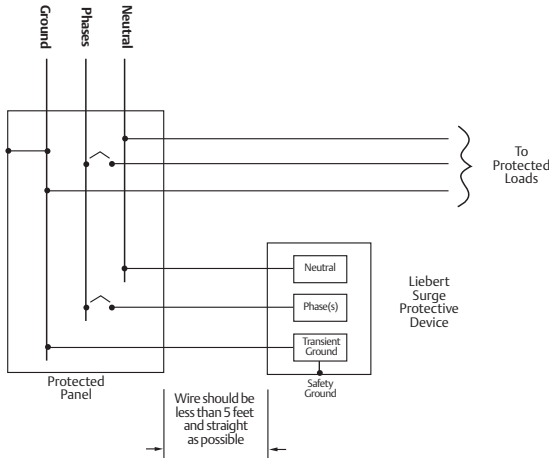
VOLTAGE RATINGS AND POWER SOURCE CONFIGURATIONS

Source Configurations	Nominal Operating Voltage			Maximum Continuous Operating Voltage	Model Voltage Code (Found in part number)
	L-N	L-G	L-L		
Single Phase L-N, 2 W + G 	120	120	N/A	150 L-N	120 N
	230	230	N/A	320 L-N	230 N
	277	277	N/A	320 L-N	277 N
Single Phase L-L, 2 W + G 	N/A	208	208	300 L-L	208L
	N/A	240	240	320 L-L	240L
	N/A	400	400	580 L-L	400L
	N/A	480	480	580 L-L	480L
Single Phase, 3 W + G 	120	120	208, 240	150 L-N	120S
	240, 277	240, 277	480	320 L-N	240S
Three Phase Delta, 3 W + G 	N/A	208	208	300 L-L	208D
	N/A	240	240	320 L-L	240D
	N/A	380-415	380-415	580 L-L	400D
	N/A	480	480	580 L-L	480D
Three Phase Wye, 4 W + G 	120	120	208	150 L-N	120Y
	220-240	220-240	380-415	320 L-N	230Y
	277	277	480	320 L-N	277Y
Three Phase Wye, 3 W + G No Neutral 	N/A	120	208	150 L-G	120X
	N/A	220-240	380-415	320 L-G	230X
	N/A	277	480	320 L-G	277X

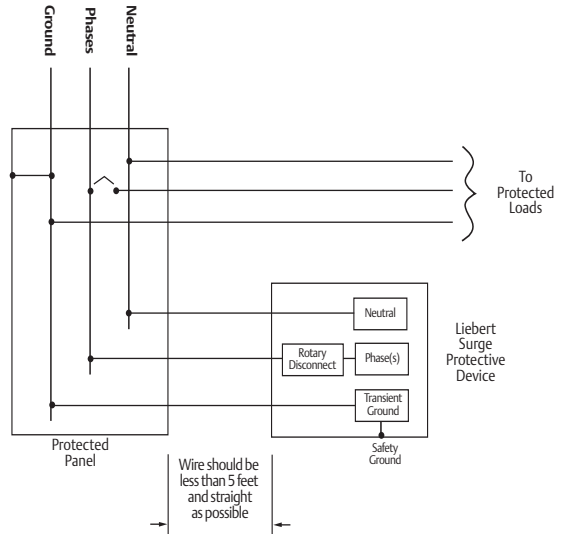
Note 1: For other voltages or source configurations, consult factory.

PARALLEL CONNECTIONS

Typical Parallel Connections
(without Internal Rotary Disconnect)



Typical Parallel Connections
(with Internal Rotary Disconnect)



ELECTRICAL CONNECTIONS (continued from page 3)

Grounding conductors must be routed with the associated power conductors in the same raceway (conduit). When metallic raceways are used, adequate electrical continuity must be maintained at all raceway connections, particularly raceway terminations to the electrical enclosures.

The use of isolating bushings or other means to interrupt a metallic conduit run is a potential safety hazard and is not recommended.

Grounding Electrode — Surge protective devices do not discharge all surges to ground (earth). Surge protective devices can also divert the surge current back to its source to complete the electrical circuit.

In the case of lightning whose potential is developed with respect to the earth, the SPD diverts the surge current to the grounding electrode (earth connection). However, for most transient surges that are developed by switching loads, the SPD diverts the surge current back to its source without involving the grounding electrode.

For proper SPD performance, the service entrance grounding electrode system must comply with the NEC by having all available electrodes (building steel, metal water pipe, driven rods, concrete encased electrodes, etc.) properly bonded together and connected to the power system grounding.

The use of a separate grounding electrode to ground the SPD defeats the effectiveness of the SPD, is a potential safety hazard, may cause equipment damage, is an NEC violation (reference NEC 250-51 and 250-54), and is not recommended.

Neutral Connection –



CAUTION FOR PROPER AND SAFE OPERATION, THE SPD'S NEUTRAL, MUST BE RELIABLY CONNECTED TO THE NEUTRAL OF THE SOURCE. FAILURE TO PROVIDE A RELIABLE NEUTRAL CONNECTION MAY RESULT IN FAILURE!

INSTALLATION INSTRUCTIONS

The Liebert SH Series Hybrid Surge Protective Devices (SPDs) are high quality, high energy surge current diversion systems designed to protect sensitive equipment from damaging transient voltage surges. Proper installation is required for maximum system performance.

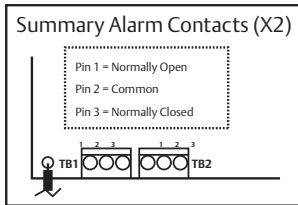
The installer should perform the following steps to assure a quality installation. The entire installation manual should be read before starting installation. These instructions do not replace national or local electrical codes. Check applicable electrical codes to ensure compliance. Installation of the Liebert SPD system should only be performed by qualified personnel.

1. Insure that all power is removed before beginning installation. A qualified licensed electrician shall install all electrical connections.

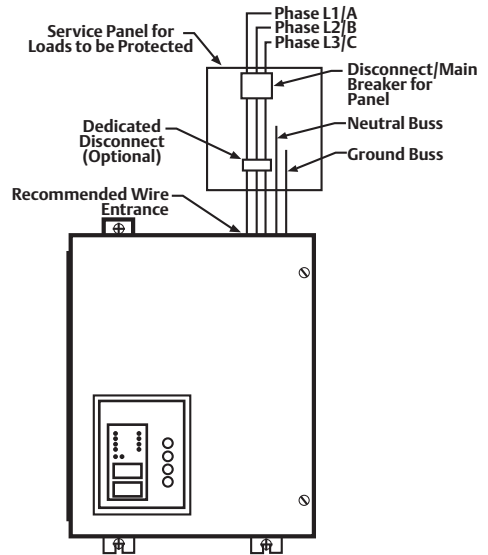
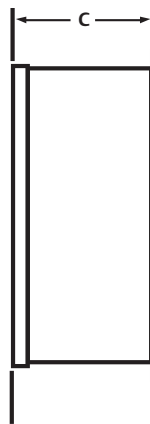
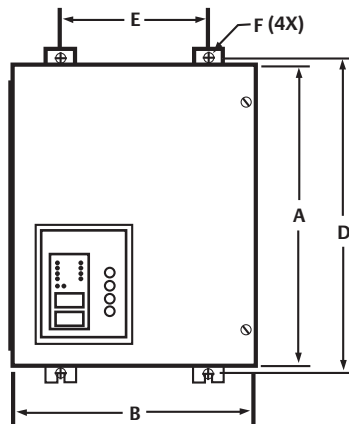
2. The SPD is provided in NEMA 4 enclosures which are suitable for use in indoor or outdoor installations.

3. Determine where the SPD is to be mounted, allowing for minimum length of wire between itself and the input power terminals of the service panel. Punch or cut the proper hole size in the side of the SPD closest to the knockout to be utilized in the service panel. Drill mounting holes in wall at location picked for SPD next to service panel using mounting dimensions shown in the table below. Mount surge suppressor to wall using 3/8" mounting hardware.

(continued on page 7)



Dimensional Information Liebert SH Series



Liebert SH Series (Without Disconnect)							
Model #	Dimensions (Inches)						Weight (lbs)
	A	B	C	D	E	F	
SH025	16	16	8	17.25	9.5	0.44	35
SH032	16	16	8	17.25	10	0.44	49
SH040	16	16	8	17.25	10	0.44	49
SH075	20	20	8	21.25	14	0.44	85

Liebert SH Series (With Disconnect)							
Model #	Dimensions (Inches)						Weight (lbs)
	A	B	C	D	E	F	
SH025	20	16	8	21.25	10	0.44	45
SH032	20	16	8	21.25	10	0.44	58
SH040	20	16	8	21.25	10	0.44	58
SH075	20	24	8	21.25	18	0.44	95

INSTALLATION INSTRUCTIONS *(continued from page 6)*

4. Connect black wires (line or phase) marked L1/A, L2/B or L3/C, the white wire (neutral) marked N, and the green wire (ground) marked G, of the SPD using the wire range listed below. To yield the best performance of the SPD within the electrical distribution system, keep all conductors as short as possible and avoid sharp bends.

5. Connection to the unit's summary alarm contacts shall be with #18 – 22 AWG. The ratings of the Form 'C' contacts are 5 amps at 250 VAC maximum with a power factor of 1.0. For additional information, see "Monitoring" section.

6. Apply power. The surge protector is fully operational when the GREEN LEDs on the modules and the front door of enclosure are illuminated. If the GREEN LEDs are extinguished or a RED LED is illuminated, check to ensure that power is applied to the SPD. If an abnormal indication is present, remove power to the SPD and contact Liebert/Emerson Network Power Surge Protection at **1-800-288-6169 or 1-607-721-8840**.

7. Periodically monitor the status of the LEDs. Reduced protection exists if the GREEN LEDs are extinguished or the RED LED is illuminated. Please contact Liebert/Emerson Network Power Surge Protection at **1-800-288-6169 or 1-607-721-8840**.

8. The protection modules in these SPDs may be replaceable, contact Liebert/Emerson Network Power Surge Protection for replacement.



If the SPD model is a Wye configured unit (4W+G), and a Neutral connection is not available, please contact factory.

SUGGESTED BREAKER AND WIRE SIZE

Model #	Allowable Range				Factory Suggested Size	
	Circuit Breaker Size		Connection Wire Size		Circuit Breaker Size	Connection Wire Size
	With Disconnect	Without Disconnect	With Disconnect	Without Disconnect		
SH025	15A – 150A	15A – 175A	#8 – 1/O AWG	#14 – 2/O AWG	60 Amp	#6 AWG
SH032	15A – 175A		#8 – 1/O AWG		80 Amp	#4 AWG
SH040	15A – 175A		#8 – 1/O AWG		80 Amp	#4 AWG
SH075	15A – 175A		#8 – 1/O AWG		100 Amp	#2 AWG

MONITORING FEATURES

External Status Indicators (Standard) — These indicators provide a summary of the status of the surge SPD module. For normal conditions, the green “OK” LED is illuminated and the red “Service” LED is extinguished. If the surge SPD module requires replacement, the green “OK” LED is turned off and the red “Service” LED illuminated.

Audible Alarm (Standard) — If the surge SPD module requires replacement, an audible alarm is activated to draw attention to the fact that repair service is required to restore the system to normal operation. An audible alarm disable is provided to silence the alarm. The system will automatically reset itself after repair. The audible alarm switch and “Service” LED can be tested by activating the “Test” switch on the system monitor panel.

Summary Alarm Contact (Standard) — Two sets of summary alarm Form C relay contacts (2 N.O. and 2 N.C.) are provided for remote indication of the failed surge SPD module. Contacts are rated 5 amps at 250 VAC maximum with a power factor of 1.0. Access to the contacts is provided via contact terminals located on the printed circuit board mounted on the inside of the unit’s cover.

Surge Counter (Optional) – The surge counter is provided for transient voltage surge monitoring. The counter totalizes line surges monitored since the last time the counter was reset. The circuit counts all surges that deviate from the line sine wave. The factory setting is 30% over nominal line voltage. Other settings include 50%, 70%, and 100%.

TROUBLESHOOTING/ SERVICING/ MAINTENANCE

Troubleshooting

If status failure indication occurs or summary alarm contacts has changed states, a qualified electrician shall first determine if the systems voltage and proper phasing exists.

If the SPD remains in an alarm condition once the electrician is satisfied that the electrical system and its connections are normal, the unit should be repaired.

At this point consult the factory, having available the following information:

- Unit identification number – (refers to the model and serial numbers detailed on the data label and is located on the front of the enclosure.)

- Nature of problem – (including status of all status indicators and alarms).

Servicing

The Liebert SH Series comes with a ten year parts and five year labor warranty (see Warranty Information). For servicing assistance, contact your local Liebert Sales Representative or Emerson Network Power, Surge Protection at **800-288-6169** or **607-721-8840**.



ONLY QUALIFIED PERSONNEL SHOULD PERFORM MAINTENANCE ON THE SYSTEM.

HAZARDOUS VOLTAGES ARE PRESENT INSIDE THE UNIT DURING NORMAL OPERATIONS.

ELECTRICAL SAFETY PRE-CAUTIONS MUST BE FOLLOWED WHEN SERVICING THIS UNIT.

TO PREVENT RISK OF ELECTRICAL SHOCK, TURN OFF AND LOCK OUT ALL POWER SOURCES TO THE UNIT BEFORE SERVICING UNIT.

Corrective Maintenance - The Liebert SPD is designed for years of trouble-free operation. However, even the most reliable equipment may fail under abnormal conditions. Diagnostic indicators are provided to indicate when the unit needs repair or replacement. To ensure continuity of surge protection, failed units should be repaired or replaced at the earliest convenient service opportunity. When replacing surge modules, other components should be inspected for damage and replaced if necessary. Standard electrical troubleshooting procedures should be used to isolate problems other than failed surge current diverter modules. When replacing components, for continued proper operation and safety, replace only with identically rated components. Please contact factory for information on replacement parts.

Preventative Maintenance (Inspection and Cleaning) - Periodic system inspections, cleaning, and connection checks are recommended to ensure reliable system performance and continued surge transient protection.

It is difficult to establish a schedule for preventative maintenance since conditions vary from site to site. Inspections for failed surge modules using available diagnostics should be done routinely (weekly or monthly).

Limited Warranty

This Warranty is given ONLY to purchasers who buy for commercial or industrial use in the ordinary course of each purchaser's business.

General:

Liebert Corporation products and systems are in our opinion the finest available. We take pride in our products and are pleased that you have chosen them. Under certain circumstances we offer with our products the following Ten Year Warranty Against Defects in Material and Workmanship.

Please read your Warranty carefully. This Warranty sets forth our responsibilities in the unlikely event of defect and tells you how to obtain performance under this Warranty.

TEN YEAR LIMITED WARRANTY AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP

LIEBERT PRODUCTS COVERED:

Liebert SH Series (Interceptor®)

Terms of Warranty:

As provided herein, the Liebert product is warranted to be free of defects in material and workmanship for a period of ten (10) years from the date of product shipment from Liebert. The shipment date will be determined only from the Liebert bill of lading. If any part or portion of the Liebert product fails to conform to the warranty within the warranty period, Liebert, at its option, will furnish new or factory remanufactured parts for repair or replacement of that part or portion.

Warranty Extends to First Purchaser for Use, Non-transferable:

This Warranty is extended to the first person, firm, association or corporation for whom the Liebert product specified herein is originally installed for use (the "User") in the fifty United States (excluding territories) or Canada. This Warranty is not transferable or assignable without the prior written permission of Liebert.

Assignment of Warranties:

Liebert assigns to User any warranties which are made by manufacturers and suppliers of components of the Liebert product and which are assignable, but Liebert makes NO REPRESENTATIONS as to the effectiveness or extent of such warranties, assumes NO RESPONSIBILITY for any matters which may be warranted by such manufacturers or suppliers and extends no coverage under this warranty to such components.

Drawings, Descriptions:

Liebert warrants for the period and on the terms of the Warranty set forth herein that the Liebert product will conform to the certified drawings, if any, applicable thereto, to Liebert's final invoices, and to applicable Liebert product brochures and manuals current as of the date of product shipment ("Descriptions"). Liebert does not control the installation and use of any Liebert product. Accordingly, it is understood that the Descriptions are NOT WARRANTIES OF PERFORMANCE and NOT WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.

Obtaining Performance Under This Warranty:

Within a reasonable time, but in no case to exceed thirty (30) days, after User's discovery of a defect, User shall contact Liebert at 1-800-LIEBERT (543-2378) and request a return authorization number. User shall ship the product, with proof of purchase, to Liebert freight prepaid. Liebert products shipped to Liebert without a return authorization number will be refused and returned freight collect to User at User's expense. Liebert products shipped by User to Liebert which have incurred freight damage due to User's improper packaging of the product will not be covered by this Warranty and any repairs or replacement parts, components or products needed will be invoiced in the full current price amount and returned freight collect to User.

Subject to the limitations specified herein, Liebert will repair or replace, at its option, without charge for Liebert labor or materials, subsequent to its inspection F.O.B. Liebert's facility, the Liebert product warranted hereunder which does not conform to the Warranty. Replacement parts, components or products shipped to User prior to Liebert's receipt and inspection of the product claimed to be defective shall be invoiced in the full current price amount and shipped freight collect F.O.B. Liebert's facility. Warranty coverage will be extended only after Liebert's receipt of the claimed defective product within thirty (30) days of shipment of any replacement parts, components or products, if applicable, and only if Liebert's inspection discloses the claimed defect and the returned product shows no signs of treatment or use which would void the coverage of this Warranty. All defective products and component parts replaced under this Warranty become the property of Liebert.

Warranty Performance of Component Manufacturers:

It is Liebert's practice, consistent with its desire to remedy Warranty defects in the most prompt and effective manner possible, to cooperate with and utilize the services of component manufacturers and their authorized representatives in the performance of work to correct defects in the product components. Accordingly, Liebert may utilize third parties in the performance of Warranty work, including repair or replacement hereunder, where, in Liebert's opinion, such work can be performed in less time, with less expense, or in closer proximity to the Liebert product.

Items Not Covered By Warranty:

THIS WARRANTY DOES NOT COVER DAMAGE OR DEFECT CAUSED BY misuse, improper application, wrong or inadequate electrical current or connection, negligence, inappropriate on site operating conditions, corrosive atmosphere, repair by non-Liebert designated personnel, accident in transit, tampering, alterations, a change in location or operating use, exposure to the elements, Acts of God, theft or installation contrary to Liebert's recommendations or specifications, or in any event if the Liebert serial number has been altered, defaced or removed. Notwithstanding the foregoing, the following Acts of God are covered: lightning-induced surges, which are transients, spikes or other sub-cycle, discontinuous events impinging on normally applied voltage as defined by reference data in the latest version of IEEE C62.41 and the Liebert product performance specifications.

THIS WARRANTY DOES NOT COVER shipping costs, installation costs, circuit breaker resetting or maintenance or service items and further, except as provided herein, does NOT include labor costs or transportation charges arising from the replacement of the Liebert product or any part thereof or charges to remove or reinstall same at any premises of the User.

THIS WARRANTY DOES NOT COVER DAMAGE OR DEFECT CAUSED BY use of the Liebert product in combination with any electrical or electronic components, circuits, systems, assemblies, or other materials not furnished by Liebert. Liebert does NOT warrant the suitability for use or the results of the Liebert product in combination with the products of others.

THE PRODUCTS LISTED IN THIS WARRANTY ARE NOT DESIGNED FOR USE IN THE FOLLOWING APPLICATIONS: (i) ANY NUCLEAR OR RELATED APPLICATIONS; AND (ii) LIFE SUPPORT AND PATIENT-CONNECTED AND APPLIED MEDICAL AND DENTAL APPLICATIONS.

REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT OR PART THEREOF DOES NOT EXTEND THE ORIGINAL WARRANTY PERIOD.

Limitations:

- THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- USER'S SOLE AND EXCLUSIVE REMEDY IS REPAIR OR REPLACEMENT OF THE LIEBERT PRODUCT AS SET FORTH HEREIN.
- IF USER'S REMEDY IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE BY A COURT OF COMPETENT JURISDICTION, LIEBERT'S RESPONSIBILITY FOR PROPERTY LOSS OR DAMAGE SHALL NOT EXCEED THE NET PRODUCT PURCHASE PRICE.
- IN NO EVENT SHALL LIEBERT ASSUME ANY LIABILITY FOR INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER, INCLUDING WITHOUT LIMITATION, LOST PROFITS, BUSINESS INTERRUPTION OR LOSS OF DATA, WHETHER ANY CLAIM IS BASED UPON THEORIES OF CONTRACT, NEGLIGENCE, STRICT LIABILITY, TORT OR OTHERWISE.

Miscellaneous:

- NO SALESPERSON, EMPLOYEE OR AGENT OF LIEBERT IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY. Warranty terms may be modified, if at all, only in a writing signed by a Liebert officer.
- Liebert obligations under this warranty are conditioned upon Liebert timely receipt of full payment of the product purchase price and any other amounts due. Liebert reserves the right to supplement or change the terms of this Warranty in any subsequent warranty offering to User or others.
- In the event that any provision of this Warranty should be or becomes invalid and/or unenforceable during the warranty period, the remaining terms and provisions shall continue in full force and effect.
- This Warranty shall be governed by, and construed under, the laws of the State of Ohio, without reference to the conflict of laws principles thereof.
- This Warranty represents the entire agreement between Liebert and User with respect to the subject matter herein and supersedes all prior or contemporaneous oral or written communications, representations, understandings or agreements relating to this subject.

Liebert Corporation

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